

Claims

1. An apparatus for regulating the exciter current for a rotary-current generator, having

a voltage source,

a rectifier connected to the voltage source,

5 three phase windings connected to the rectifier,

one evaluation unit connected to one phase winding, and

one voltage regulator, whose input is connected to the evaluation unit and whose output is connected to the exciter winding of the rotary-current generator,

10 characterized in that

the evaluation unit (9) has three input terminals (10, 11, 12), and each of these input terminals is connected to one of the phase windings (5, 6, 7) of the rotary-current generator (2);

15 the evaluation unit (9) is intended for evaluating the phase voltages associated with the three phase windings, in order to detect unauthorized work states; and

the voltage regulator (3) on detecting unauthorized work states reduces the exciter current flowing through the exciter winding (8).

20

2. The apparatus of claim 1, characterized in that the

evaluation unit (9) is a component of the voltage regulator (3).

3. The apparatus of claim 1 or 2, characterized in that the evaluation unit (9) has a fourth input terminal (14), which is connected to the positive pole of the voltage source (1), and that the evaluation unit has one terminal (15) connected to ground potential.

4. The apparatus of one of the foregoing claims, characterized in that the evaluation unit serves to detect error functions of the rectifier.

5. The apparatus of one of the foregoing claims, characterized in that the evaluation unit serves to detect error functions of one of the phase windings.

6. The apparatus of one of the foregoing claims, characterized in that the evaluation unit evaluates all three phase voltages for amplitude and/or frequency.